

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : VON OEPEN et al. Confirmation No.: 1304
Serial No. : 10/523,596
Filed : December 2, 2005
For : APPARATUS FOR DELIVERY AND DEPLOYMENT OF AN
EXPANDABLE STENT WITHIN A BLOOD VESSEL
Art Unit : 3762
Examiner : Not Assigned
Customer No. : 35023

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SECOND PRELIMINARY AMENDMENT

Sir:

Please amend the above-identified patent application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims begin on page 3 of this paper.

Remarks begin on page 5 of this paper.

CERTIFICATE OF MAILING/TRANSMISSION

I hereby certify that on the date indicated below, this correspondence and anything being referred to as enclosed herein is being:
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July 12, 2007

Signature: /Anna Skolnick/

Name: Anna Skolnick

Amendments to the Specification:

Please replace the originally filed specification with the enclosed substitution specification which has been submitted in both marked-up and clean formats.

Amendments to the Claims:

Please cancel claims 1-11 and add new claims 12-22 as follows:

1-11. (Cancelled)

12. (New) An apparatus for delivery and deployment of an expandable stent within a vessel, the apparatus comprising:

a catheter having a proximal end and a distal end,

an expandable means mounted at the distal end of the catheter and being expandable by means of a fluid pressure device, the expandable stent being expandable from a delivery diameter to a deployment diameter and being mounted on the catheter over the expandable means,

a sheath being slidably mounted on the stent and being arranged for proximal retraction to expose the stent by means of a retraction device, wherein

the fluid pressure device is further arranged for operating the retraction device so that the expandable means is expanded in response to the retraction of the sheath.

13. (New) The apparatus according to claim 12, wherein the retraction device comprises a cylinder-piston arrangement operated by the fluid pressure.

14. (New) The apparatus according to claim 12, further comprising a control means for controlling the fluid pressure operating the retraction device and the expandable means, either concurrently or sequentially.

15. (New) The apparatus according to claim 13, wherein a first piston of the cylinder-piston arrangement is connected to the sheath via a wire.

16. (New) The apparatus according to claim 13, wherein the cylinder-piston arrangement comprises an outlet connected to a fluid pressure line for applying the fluid pressure to the expandable means.

17. (New) The apparatus according to claim 16, wherein the cylinder-piston arrangement comprises a floating second piston for controlling the opening/closing of the outlet.

18. (New) The apparatus according to claim 17, wherein during retraction of the sheath either the first piston or the second piston closes the outlet, and after at least partial retraction of the sheath the first and second pistons are in a position at the proximal end of the cylinder and the outlet is open.

19. (New) The apparatus according to claim 18, wherein the first piston comprises a hook, the second piston comprises a first central opening, the cylinder comprises a second opening and a hook holder at its proximal end, so that during retraction of the sheath the shifting first piston moves the hook through the first opening and the second opening until the hook engages the hook holder.

20. (New) The apparatus according to claim 16, wherein the first piston arrangement comprises a connector means and the cylinder comprises at its proximal end a receiving means for the connector means, so that after retraction of the sheath the connector means engages the receiving means and the outlet is in connection with the fluid pressure acting on the first piston.

21. (New) The apparatus according to claim 15, wherein the cylinder-piston arrangement comprises the first piston and a two-position valve abutting via a spring at the proximal end of the cylinder, wherein in a closed position the valve shuts by the spring force channels penetrating the wall of the cylinder, and in an open position, the valve opens the channels after it is pushed by the piston when the sheath is retracted and connects a fluid pressure line from the fluid pressure device with a fluid pressure line so that the fluid pressure is applied to the expandable means.

22. (New) Apparatus according to any of claims 12, wherein the fluid is liquid.

REMARKS

In the Specification

Applicant has replaced the entire originally filed application under 37 CFR 1.125(b) to correct numerous grammatical and formatting errors, the amendment of which would render it difficult to consider the application. No new matter has been added.

In the Claims

This application is a national phase application of PCT/EP2003/008795. The PCT application included claims 1-11. A Preliminary Amendment filed February 4, 2005 cancelled the existing claims and added new claims. The new claims were incorrectly numbered 1-11, the same as the cancelled claims. By this amendment, the added claims are renumbered 12-22. Therefore, upon entry of the present amendment, claims 12-22 will be subject to examination.

New claims 12-22 are fully supported by the disclosure of the specification and drawings. No new matter has been added.

Conclusion

In view of the foregoing amendment and remarks, Applicant respectfully submits that the present application is ready for examination. An early and favorable response is earnestly requested.

Dated: July 12, 2007

Respectfully submitted,

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